**Homework 5- FORM A Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Distance Formula Period: \_\_\_\_\_\_\_\_Advisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Failure to show work on all problems will result in a LaSalle.**

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| 1. Rewrite the distance formula using the coordinates (2, -4) and (6, 4):   **\*HINT\* use this formula to help you with questions 1-10**  http://0.tqn.com/d/math/1/0/A/1/distance.gif | 1. Find the distance from C (-10, 12) and D (4, -14)? |
| 1. The endpoint of FM are F(10, -21) and M(11, -3). The endpoints of AC are A(-5, 12) and C(3,1). What is the approximate difference in the lengths of the two segments? | 4. The locations of the towns of Mount Vernon is (11,0) and Clearfield is (-20, 2). Little City is (15, -12) and Allentown (21, 4). The coordinates are given in miles. Find the distance between Mount Vernon and Clearfield. Find the distance between Little City and Allentown. Which distance is greater? |
| 1. Label the points on the graph and find the distances for the following line segments:   A(-2, 0) and B(3, -6)  P(2, 3) and Q(-2, -1)  What line segment is the longest? ­­­­­­­­­ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  What line segment is the shortest? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1. Mark is standing at coordinate (-12, -4); Jackson is standing at coordinate (-6, 10); and Jenny is standing at (2, -12).   Which two students are furthest away from each other?  Which two students are the closest together? ­­­­ ­ |
| 1. Find the distance between A(4, 4) and B(-1, -8). | 1. Find the distance between C(-4, 5) and D(10, -7). |
| 1. Find the distance between T(-2, 7) and H(5, -8). | 1. Find the distance between P(-16, 20) and R(7, 11). |

**Mixed Review**

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| 1. Find the slope of (-2, 3) and (5, -2).   **\*HINT\* Use this formula to help with #’s 11-14** | 1. Find the slope of the graph below. |
| 1. Find the slope of (-11, 0) and (6, 13). | 1. Find the slope of (-6, 2) and (13, -6). |
| 1. Factor .   1st: Factor the term that is not attached to a variable.  2nd: Find 2 factors that add together to total the coefficient of the other term.  3rd: Factor out the variable with an exponent.  Step 1: 14  Step 2: 2 + 7  Step 3: (x +\_\_\_) (x +\_\_\_) | 1. What is the product of (4x -5) and (2x-1)?   *Remember that “product” means multiply, so (4x – 5)(2x – 1) =?* |
| 1. Factor . | 1. What is the product of (12x -3) and (x+ 5). |
| 1. Solve for w.   2p+ 4w = 13 | 1. Solve for |